



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/656,106 09/06/00 WAJIMA

M 36856.345

EXAMINER

MM91/1108

KEATING & BENNETT LLP
SUITE 312
10400 EATON PLACE
FAIFAX VA 22030

GONZALEZ, J

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

11/08/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/656,106

Applicant(s)

WAJIMA ET AL.

Examiner

Julio C. Gonzalez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/6/00 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the printed circuit board and the conductive bond disclosed in claim 13 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. **See MPEP 608.02(d), 608.02(e).**

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6-12, 14-18, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaida et al.

Kaida et al discloses a circuit having a lower surface, a pair of side surfaces, a plurality of external electrodes 117, 118 and external electrodes portion provided on the lower surface of the electric component with a narrow portion and wide portion (see figure 38). Also, the electronic component element includes a piezoelectric resonant element 41, a first case 115 and second case 116 substrate bonded to the piezoelectric element and each substrate has a recess 113, 114. Moreover, the width of the external electrode portion on the lower surface of the electronic component element is larger than the

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width of the external electrode portion formed on the side surface of the electronic component element (see figure 39).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5, 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaida et al in view of Okamura.

Kaida et al discloses a circuit having a lower surface, a pair of side surfaces, a plurality of external electrodes 117, 118 and external electrodes portion provided on the lower surface of the electric component with a narrow portion and wide portion (see figure 38). Also, the electronic component element includes a piezoelectric resonant element 41, a first case 115 and second case 116 substrate bonded to the piezoelectric element and each substrate has a recess 113, 114. Moreover, the width of the external electrode portion on the lower surface of the electronic component element is larger than the width of the external electrode portion formed on the side surface of the electronic component element (see figure 39).

However Kaida et al does not disclose that the electronic component comprises a circuit board and the electrodes can have the form of circular, rectangular and triangular shape.

On the other hand, Okamura discloses for the purpose of ensuring a stable manufacture of a resonator at constant resonance frequency, thus preventing the facing area between the internal electrodes from varying that the electrodes, a rectangular electrode 4 which can be also manufacture with a circular and triangular shape (column 6, lines 22, 23) and also discloses an electronic component mounted on a printed circuit board via a conductive bond (column 7, lines 11-16).

It would have been obvious to one having ordinary skill in the art to design an electronic component comprising electrodes, a piezoelectric element, substrates with recesses as disclosed by Kaida et al and to include a printed circuit board and make the electrodes with different shapes for the purpose of ensuring a stable manufacture of a resonator at constant resonance frequency, thus preventing the facing area between the internal electrodes from varying that the electrodes as disclosed by Okamura.

Response to Arguments

6. Applicant's arguments filed 08/28/01 have been fully considered but they are not persuasive.

Applicant argues that Kaida et al does not disclose the claimed invention. Examiner disagrees. According to the claims, each external electrode has a narrow and wide portion. Kaida et al discloses a piezo resonator 42, external electrodes 48a which have a conductive part 47a which is narrower and forms part of the electrode (see figure 10). Moreover, in figure 36(a), Kaida et al discloses an external electrode 48a, which has a narrow portion and a wider portion 82a.

Also, in figure 38, the piezo resonator 42 with electrodes 48a are below a substrate 115, which technically are on a lower surface. (See figures 38, 40, 36(a), 36(b), 37, 10, and 35)

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio C. Gonzalez whose telephone number is (703) 305-1563. The examiner can normally be reached on M-F (8AM-5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jcg

November 6, 2001


NESTOR RAMIREZ
SUPERVISOR'S PATENT EXAMINER
TECHNOLOGY CENTER 2600